



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/024,278 | 12/21/2001 | Roger Spink | 016790-0447 | 4914 |

22428 7590 07/24/2003

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

| |
|----------|
| EXAMINER |
|----------|

FINEMAN, LEE A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2872

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/024,278

Applicant(s)

SPINK, ROGER

Examiner

Lee Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-28 and 30-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-28 and 30-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2002 and 14 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to an amendment filed 14 May 2003 in paper number 6 in which claims 1, 3-4, 7-8, 10-11, 13-15, 17-19, 22-25, 27 and 30-31 were amended and claims 2 and 29 were cancelled. Claims 1, 3-28 and 30-32 are pending.

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 14 May 2003 have been approved.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-19 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Fantone et al., U.S. Patent No. 4,786,154.

Regarding claims 1, 6, 19-21, and 22, Fantone et al. disclose a device for controlling a characteristic of an image signal superimposed on a specimen image (fig. 2) comprising a main optical system (12, 13, 14), which is a microscope, configured to refract light emitted from a specimen (10) into a main beam path (not numbered from 10 to 22); a superimposition apparatus (42), which is a display, in a fixed relationship to the main optical system (fig. 2) to a viewer (after 22), configured to generate the image signal; a superimposing reflector (46) configured to reflect the image signal generated by the superimposition apparatus into the main beam path and

Art Unit: 2872

to superimpose the image signal onto the specimen image (column 4, lines 24-31); an image measurement unit (38), which is a CCD, in a fixed relationship to the main optical system (fig. 2), configured to measure a brightness of the specimen image (column 2, line 61-column 3, line 22); a controller configured to adjust, with a control signal, the brightness of the image signal generated by the superimposition apparatus in response to a measurement by the image measurement unit of the characteristic of the specimen image (column 3, lines 22-26); wherein the image measurement unit is configured to measure characteristics of those individual regions that are in a viewer's line of sight (column 3, line 5-column 4, line 16) and a manual input unit for providing a manual input signal from a viewer to the controller, wherein the controller is configured to adjust the brightness of the image signal generated by the superimposition apparatus in response to the manual input signal and the measurement by the image measurement unit (part of 40, in so far as there must be some manual input and therefore a manual input unit to provide input direction about the image enhance, e.g. the specified frequency stated in column 3, lines 20-21). The method of utilizing the structure of the claim is inherent therein.

Regarding claim 3, Fantone et al. further discloses wherein the image measurement unit is configured to measure a spatial brightness distribution of the specimen image (column 3, lines 18-26).

Regarding claims 4-5 and 23, Fantone et al. further discloses wherein the image measurement unit is further configured to measure one selected from the group of color and contrast, the controller is further configured to adjust the selected one of color and contrast (column 3, lines 27-35), and the image measurement unit is configured to measure a spatial color or contrast distribution of the specimen image (column 3, lines 43-51).

Regarding claim 8, Fantone et al. further discloses wherein the image measurement unit is configured to measure the brightness of the specimen image by measuring light emitted from the specimen and refracted by the main optical system (12, 14) into the main beam path (fig. 2).

Regarding claims 9 and 24, Fantone et al. further discloses a beam splitter (32) configured to reflect a portion of the specimen image from the main beam path to the image measurement unit.

Regarding claims 10 and 14, Fantone et al. further discloses wherein the image measurement unit is configured to measure brightness of the entire specimen image and the controller is configured to adjust brightness of the entire image signal generated by the superimposition apparatus in response to the measurement by the image measurement unit (column 3, lines 9-14).

Regarding claims 11-13, 15-16 and 25-26, Fantone et al. further discloses wherein the image measurement unit is configured to measure brightness of individual regions of the specimen image, wherein the controller is configured to adjust brightness of individual regions of the image signal generated by the superimposition apparatus in response to the measurement by the image measurement unit, and wherein the individual regions are individual pixels (column 3, lines 27-42).

Regarding claims 17-18, Fantone et al. further discloses wherein the controller is configured to adjust brightness of individual pixels of the image signal generated by the superimposition apparatus in response to measurements by the image measurement unit of the brightness of the corresponding pixels of the specimen image and wherein the controller is configured to adjust brightness of individual regions of the image signal generated by the

Art Unit: 2872

superimposition apparatus in response to measurements by the image measurement unit of the brightness of the corresponding regions of the specimen image (column 3, line 63-column 4, line 9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fantone et al. in view of Shioda et al., U.S. Patent No. 6,081,371.

Fantone et al. discloses the claimed invention except wherein the image measurement unit is configured to measure the brightness of the specimen by directly measuring light emitted from the specimen and not refracted by the main optical system. Shioda et al. teaches a device (fig. 1) which controls the brightness (column 10, lines 34-42) of a superimposed image (43, fig. 3b) on a specimen image (44, fig. 3b) wherein the image measurement unit (32) is configured to measure the brightness of the specimen by directly measuring light emitted from the specimen and not refracted by the main optical system (fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the image measurement unit measure directly from the specimen and not be refracted by the main optical system as suggested by Shioda et al. to save money and simplify the system by reducing the number of parts needed.

Art Unit: 2872

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fantone et al in view of Grund et al., U.S. Patent No. 6,217,519 B1.

Fantone et al. discloses the claimed invention except wherein the manual input unit is operable remotely from the device. Grund et al. teaches a system that combines images (fig. 1, column 3, line 65-column 4, line 8) and has a manual input unit (22) that is operable remotely from the device (column 4, lines 12-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the manual input unit of Fantone et al. operable remotely from the device as suggested by Grund et al. to provide a more flexible working area.

6. Claims 27-28 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fantone et al. in view of Marino et al., U.S. Patent No. 5,307,202.

Regarding claims 27, and 30-32, Fantone et al. discloses the claimed invention except for explicitly stating that the superimposition apparatus is automatically adjusted in response to a measurement by the image measurement unit of the brightness of the specimen image. Marino et al. discloses a device for controlling a characteristic of an image signal superimposed on a specimen image (fig. 1) wherein the superimposition apparatus (11) can be automatically adjusted via software (column 2, lines 40-51). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the superimposition apparatus of Fantone et al. automatically adjust the brightness as suggested by Marino et al. to provide faster adjustment times.

Art Unit: 2872

Regarding claim 28, Fantone et al. further discloses the microscope being a surgical stereomicroscope (column 1, lines 7-8).

Response to Arguments

7. Applicant's arguments filed 14 May 2003 have been fully considered but they are not persuasive.

Applicant argues that Fantone does not disclose a brightness sensor for sensing the overall brightness of the image. The examiner respectfully disagrees. Sensors (38) provide a video signal of the entire image, which includes information on the brightness of the image.

Applicant further argues that Fantone does not disclose a mechanism for adjusting the basic brightness of an image (e.g. an image on an LCD or monitor) such as by regulating an illuminating light source. The examiner respectfully disagrees. In fig. 2, Fantone does disclose a display (42) and specifically states in column 3, lines 16-26 the image enhancement technique of increasing gain (which equates to brightness) of an image from the object. Also, the examiner respectfully points out that superimposing an enhanced specimen image signal, which has increased brightness, back into the optical path and onto the specimen image meets limitations claimed.

8. It is noted by the Examiner that the drawing objections and 112 rejection made in the previous Office Action have been withdrawn due to amendment by the Applicant.

Art Unit: 2872

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (703) 305-0024. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.


Art Unit: 2872

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



LAF

July 16, 2003


MARK A. ROBINSON
PRIMARY EXAMINER